

**Abstract**

A telephonic handset comprises an active noise reduction (ANR) system. The ANR system comprises a reference microphone and an IIR filter. The IIR filter is receivingly coupled to the reference microphone with respect to noise reference signals, and it is transmittingly coupled to the receiver transducing element of the handset. The ANR system is configured as a fixed feed-forward noise cancellation system. Preferably, the IIR filter has a transfer function derived, in part, from the open-loop gain of a feedback noise cancellation system.

10 In specific embodiments of the invention, the noise reference microphone is situated so as to sample the ambient noise field near the front face of the receiver, but without directly sampling the noise field on the front face.

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